

5. CONTENT OF WRITTEN ANSWER

(1) The written opinion of the International Searching Authority mailed on 2004 July 20 states that the inventions of Claims 1 and 8 of this application are considered to be obvious over the following documents:

Reference 1: JP 2000 – 90272 A

Reference 2: JP 5-506369 A

Reference 3: JP 2003-52416 A

Reference 4: JP 2002 – 177015 A

Also, the invention of Claim 2 of this application is considered to be obvious over References 1 to 4 listed above and Reference 5 (JP 61-99801 A).

Also, the invention of Claims 3 to 5 of this application are considered to be obvious over References 1 to 5 listed above.

Also, the inventions of Claims 6 and 7 of this application are considered to be obvious over References 1 to 5 listed above and Reference 6 (JP 2002 - 199905 A).

Also, the invention of Claim 9 of this application is considered to be obvious over References 1 to 4 listed above.

Also, the inventions of Claims 10 to 12 of this application are considered to be obvious over References 1 to 4 listed above and Reference 7 (JP 8 - 66205 A) and Reference 8 (JP Japanese Utility Model Application No. 57-162656).

(2) INVENTION OF PRESENT APPLICATION

The present application has been made, focusing attention on the fact that there is a difficulty in selecting an appropriate shoe shape for a customer based on only data such as foot length, foot girth, foot width, planter arch, and foot curvature. In short, it is difficult to select a shoe shape that fits a customer from a plurality of shoe shapes prepared beforehand, based on only the above data.

The present application is directed to overcoming the foregoing problem. The present application selects a shoe shape, taking account of the features of the first and second toes of the customer and is characterized by shoe shape selection based on a plurality of data items about the customer, which include the difference between the lengths of the first and second toes of the foot, the

first toe height ratio and the fit property which are parameters relating the first and second toes.

Finding that when selecting a shoe shape, an appropriate shoe shape could be statistically determined based on the difference in length and height between the first and second toes of a foot, the applicant came to the conclusion that the method of the present application could provide a higher degree of satisfaction to the customer than the shoe shape selection based on only parameters which did not include the difference in length and height between the first and second toes. The invention of the present application has been made based on such knowledge.

(3) INVENTIONS OF CITED REFERENCES

① INVENTION OF CITED REFERENCE 1

The invention of Cited Reference 1 is associated with a method of selecting a shoe type based on data on the tiptoe portion, central portion and heel portion of a foot. It performs clustering of a group of data by use of a statistical clustering method as well as “fuzzy” and stores such data as a model. Based on this model, a shoe type that fits the size of a foot is selected, utilizing an educational and learning function such as neural networks.

② INVENTION OF CITED REFERENCE 2

The invention of Cited Reference 2 uses foot measurement data, customer identification data and customer reference data for data analysis to select a shoe type suited for the size of a foot.

③ INVENTION OF CITED REFERENCE 3

According to the invention of Cited Reference 3, female molds for forming lasts are made, using data on the foot shape of the customer. Then, the lasts are formed. The data on the foot shape used at that time are foot length, foot girth, foot width, the length of the inner planter arch, the length of the outer planter arch, heel width, first toe side angle, fifth toe side angle, foot height, first toe height, fifth toe height, external malleolus edge height, arch height, arch height ratio and heel angle.

④ INVENTION OF CITED REFERENCE 4

According to the invention of Cited Reference 4, the size of the lasts is determined and the lasts are designed, using data on foot size. In the determination of the size of the lasts, the design can be adjusted by use of the design of the shoes to be produced, heel height, foot type (Egyptian Type, Greek Type, Hallux Valgus Type, Spread Foot Type, etc.) and others.

⑤ INVENTION OF CITED REFERENCE 5

According to the invention of Cited Reference 5, the main sizes of the interior of the shoes the customer got used to wear are measured and used as data for new shoes. The main sizes are foot length and foot girth. Cited Reference 5 states that there is a difficulty in adjustments such as making the entire length of a shoe 0 to 25 mm longer than the length of the foot and making the girth of the interior of a shoe several mm smaller than the girth of the foot, because they involve sensitive factors and therefore the fitter who makes such adjustments is required to have good skill.

⑥ INVENTION OF CITED REFERENCE 6

According to the invention of Cited Reference 6, customer's foot shape measurement data, test-fitted shoe files, test-fitted shoe models, correction data and last libraries are used for producing shoes that fit the foot shape of the customer. Herein, the correction data include the fit property, the customer's preference etc.

⑦ INVENTION OF CITED REFERENCE 7

According to the invention of Cited Reference 7, the angle (underfoot angle) α between the underfoot line L2* and central line L1 of a last and the angle β (instep ridge angle) between the ridge line L3 of the instep and the central line L1 of the last on a plane are respectively limited to a specified range to produce the last. The embodiment disclosed herein uses the oblique toe type.

(NOTE) underfoot line* = the line connecting the point of the last which corresponds to the fibular-side metatarsal point and the point of the last which corresponds to the tibial-side metatarsal point.

⑧ INVENTION OF CITED REFERENCE 8

According to the invention of Cited Reference 8, the tiptoe portion of a shoe is formed so as to correspond to the profile of the foot.

(4) COMPARISON OF PRESENT APPLICATION AGAINST CITED REFERENCES

① As understood from the above, Cited References 1 to 4 do not provide an explicit statement that the difference between the lengths of the first and second toes (i.e., first-second toe length difference) is utilized as data on the foot.

In contrast with this, the inventions of Claims 1 to 8 of the present application are characterized by utilization of the difference between the lengths of the first and second toes (i.e., first-second toe length difference). This makes it possible to select shoes which provide a high degree of satisfaction to the customer.

② Although Cited Reference 5 discloses a design for the interior of a shoe, which is larger or smaller than the actual size of the foot in terms of foot length and foot girth, no criteria for making it larger or smaller are disclosed.

In contrast with this, the invention of Claim 2 of the present application is characterized by determination of shoe length based on the difference between the lengths of the first and second toes. This makes it possible to select shoes which provide a high degree of satisfaction to the customer.

③ Cited Reference 3 discloses a technique for designing a shoe based on data including first toe height and fifth toe height. However, it does not pay attention to the first toe height ratio (i.e., the ratio of the height of the upper face of the first toe from the floor surface to the foot length).

In contrast with this, the inventions of Claims 3 to 5 of the present

application utilize the difference between the lengths of the first and second toes and/or the first toe height ratio. This makes it possible to select shoes which provide a high degree of satisfaction to the customer.

④ Cited Reference 6 discloses use of the fit property of a shoe and customer's preference as correction data. However, it does not teach what data form correction data in association with the fit property and the customer's preference.

On the other hand, the inventions of Claim 6 and 7 of the present application concretely teach the data (foot length, foot girth, the difference between the lengths of the first and second toes, and first toe height ratio) associated with the fit property and the customer's preference. This enables selection of shoes which provide a high degree of satisfaction to the customer.

⑤ Cited Reference 3 discloses use of data on first toe side angle for designing a last, but does not teach what data are associated with the data on the first toe side angle.

On the other hand, the invention of Claim 9 of the present application concretely teaches the data (first-second toe length difference) associated with the first toe side angle. Thereby, selection of shoes which provide a high degree of satisfaction to the customer becomes possible.

⑥ Cited References 7 and 8 disclose use of the oblique type shoes, but do not teach what data are associated with the oblique type.

In contrast with this, the inventions of Claim 10 to 12 of the present application concretely teach the data (the range of the angle of inward inclination of the first toe and the difference between the lengths of the first and second toes) associated with the oblique type. This enables selection of shoes which provide a high degree of satisfaction to the customer.

(5) Applicant respectfully requests that the unobviousness of the inventions of Claims 1 to 12 of this application be accepted for the above reasons.